AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A telemedicine system comprising a patient-based physiological data acquisition and transmittal device connectable via a wireless network to transmit physiological data to a remote server, wherein the patient-based ~~measurement and~~ data acquisition and transmittal device comprises:

an electronic physiological data acquisition unit for measuring a physiological parameter of a patient to acquire and output data representing the parameter;

a wireless transmitter which upon receiving the output data from the data acquisition unit automatically transmits the output data via the wireless network to the remote server; and

a display for displaying to the patient the data and a message related to the patient's condition,

wherein the system analyzes ~~is adapted to analyze~~ the output data automatically with reference to known trends for the patient, the analyzing being tuned to the patient's characteristics, and, in response, automatically generates ~~to generate~~ and displays ~~display~~ on said display said message related to the patient's condition, and

wherein the system further sends information from the server to the patient-based physiological data acquisition and transmittal device for display thereon to initiate interaction with the patient, the information comprising one or more questions for the patient to answer.

Claim 2 (Original): A telemedicine system according to claim 1 wherein the wireless transmitter is adapted to receive automatically the output data from the physiological data acquisition unit on data acquisition thereby, and thereupon automatically to transmit the output data immediately in real time to the remote server.

Claim 3 (Previously Presented): A telemedicine system according to claim 1 wherein the wireless transmitter is adapted to establish a connection to the wireless network automatically when it is switched on and to maintain the connection while switched on.

Claim 4 (Previously Presented): A telemedicine system according to claim 1 wherein the wireless network is a packet-switched network.

Claim 5 (Original): A telemedicine system according to claim 4 wherein the wireless network is a public network.

Claim 6 (Previously Presented): A telemedicine system according to claim 5 wherein the wireless network is a General Packet Radio Service (GPRS) network.

Claim 7 (Previously Presented): A telemedicine system according to claim 1 wherein the wireless network is one of a 3G, a PDC-P and an EDGE network.

Claim 8 (Previously Presented): A telemedicine system according to claim 1 wherein the wireless transmitter is one of a cellular telephone and a pda.

Claim 9 (Previously Presented): A telemedicine system according to claim 8 wherein a software application is provided on the one of a cellular telephone and a pda to interface with the physiological data acquisition unit and to control data transmission to the remote server.

Claim 10 (Currently Amended): A telemedicine system according to claim 1 wherein the patient-based ~~measurement and~~ data acquisition and transmittal device is adapted to check the acquired data for compliance with preset conditions.

Claim 11 (Original): A telemedicine system according to claim 10 wherein the preset conditions relate to the quality or completeness of the data or the condition of the patient.

Claim 12 (Canceled).

Claim 13 (Currently Amended): A telemedicine system according to claim 1 wherein the patient-based ~~measurement and~~ data acquisition and transmittal device stores the

data if a network connection is unavailable and automatically retransmits it later when a network connection is available.

Claim 14 (Previously Presented): A telemedicine system according to claim 1 wherein the remote server processes the data to check the condition of the patient and responds with said message related to the patient's condition via the wireless network.

Claim 15 (Previously Presented): A telemedicine system according to claim 1 wherein the remote server formats the data for delivery and display to a clinician.

Claim 16 (Previously Presented): A telemedicine system according to claim 1 wherein the remote server comprises a data analyser for identifying trends in the data and a message generator for generating messages including said message related to the patient's condition to be output to at least one of the patient and a clinician.

Claim 17 (Original): A telemedicine system according to claim 16 wherein the data analyser comprises a Kalman smoother for smoothing the data.

Claim 18 (Previously Presented): A telemedicine system according to claim 1 wherein the physiological data acquisition unit is one of: an electronic flow meter for recording Peak Expiratory Flowrate, an electronic blood glucose meter, a blood pressure monitor, and a heart rate monitor.

Claim 19 (Previously Presented): A telemedicine system according to claim 1 wherein the physiological data acquisition unit and wireless transmitter are integrated as a single device.

Claim 20 (Previously Presented): A telemedicine system according to claim 1 wherein the data sent from the wireless transmitter is time stamped with reference to a secure clock.

Claim 21 (Original): A telemedicine system according to claim 20 wherein the secure clock is provided in the patient-based physiological data acquisition and transmittal device.

Claim 22 (Previously Presented): A telemedicine system according to claim 1 wherein a secure data store is provided in the patient-based physiological data acquisition and transmittal device.

Claim 23 (Previously Presented): A telemedicine system according to claim 1 wherein the data sent from the wireless transmitter is digitally signed.

Claim 24 (Previously Presented): A telemedicine system according to claim 1 wherein the data sent from the wireless transmitter comprises the location of the wireless transmitter.

Claim 25 (Previously Presented): A telemedicine system according to claim 24 wherein information is sent from the server to the patient-based physiological data acquisition and transmittal device for display thereon and is adapted depending on the location of the wireless transmitter.

Claim 26 (Currently Amended): A telemedicine system according to claim 1 wherein the information is sent from the server to the patient-based physiological data acquisition and transmittal device for display thereon to initiate interaction with the patient [[and]] is adapted depending on the value of the physiological parameter measured by the electronic physiological data acquisition unit.

Claim 27 (Currently Amended): A telemedicine system according to claim 1 wherein further information is sent from the server to the patient-based physiological data acquisition and transmittal device, and wherein in dependence upon the [[said]] physiological parameter measurement and transmission to the server the further [[said]] information comprises a prescription for medication.

Claim 28 (Previously Presented): A telemedicine system according to claim 1 wherein the electronic physiological data acquisition unit is connectable to the wireless transmitter by a connection comprising a data head including an interface.

Claim 29 (Original): A telemedicine system according to claim 28 wherein the data head comprises a secure clock for time stamping the data.

Claim 30 (Previously Presented): A telemedicine system according to claim 28 wherein the data head comprises a secure memory for storing the data.

Claims 31–35 (Canceled).

Claim 36 (Currently Amended): A telemedicine method comprising:

measuring a physiological parameter of a patient using a patient-based device to acquire and output data representing the parameter;

automatically wirelessly transmitting the output data via a wireless network to a remote server;

receiving from the remote server a message related to the patient's condition obtained by an automatic, patient-tuned analysis of ~~analyzing~~ the data ~~automatically~~ with reference to known trends for the patient ~~and in response automatically generating a message related to the patient's condition~~; ~~and~~

displaying via a display of the patient-based device the message related to the patient's condition; and

initiating interaction with the patient according to information received from the server based on the analysis, the interacting comprising displaying one or more questions.

Claim 37 (New): A patient-based physiological data acquisition and transmittal device connectable via a wireless network to transmit physiological data to a remote server, the patient-based data acquisition and transmittal device comprising:

an electronic physiological data acquisition unit for measuring a physiological parameter of a patient to acquire and output data representing the parameter;

communication circuitry which, upon receiving the output data from the data acquisition unit, automatically transmits the output data via the wireless network to the remote server and which receives from the remote server a message related to the patient's condition obtained by an automatic, patient-tuned analysis of the output data with reference to known trends for the patient; and

a display for displaying to the patient the data and a message related to the patient's condition,

wherein the device initiates interaction with the patient according to information received from the remote server based on the analysis, the interaction comprising a display of one or more questions.